Robert F. Deegan
Sierra Club Virginia Chapter
340 Ramapo Road
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VIRGINIA CHAPTER
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"When we try to pick out anything by itself, we find it hitched to everything else in the universe."
John Muir

July 18, 1996

William Knoll
Department of the Navy
Code NAVSEA 08U
2531 Jefferson Davis Highway
Arlington, Va. 22242-5160

Thank you for this opportunity to comment on the Draft Environmental Impact Statement (EIS) for a Container System for the Management of Naval Spent Nuclear Fuel (SNF). Please put my name on the mailing list for all future correspondence on this and related matters. The Virginia Chapter of the Sierra Club is an environmental group with about 11,000 members throughout Virginia.

A This Draft EIS segments management (transport, storage, and disposal) of naval SNF from the problem of commercial reactor SNF. This Draft EIS is thus inadequate because the EIS covers only a small portion of the total SNF that must be moved to a repository, or interim storage site. This is improper segmenting of the environmental impacts. The decision on this partial analysis of the problem would improperly set precedents for all SNF shipments, while only considering the environmental impacts of a small portion of the SNF to be managed. What is needed is an EIS for a container system that covers all SNF to be shipped to a repository or interim storage site.

B The scope of this Draft EIS is also inadequate in other respects. The Draft EIS fails to consider transport of naval SNF from the shipyards where it is removed from warships going to INEL, Idaho. Further, the Draft EIS fails to consider temporary storage of SNF at shipyards. What is needed is an EIS that covers all transport and storage of naval SNF that could be applicable to a container system. The failure of this Draft EIS to include application of its container system to SNF transport from shipyard sites to INEL is a major omission that constitutes segmenting of the environmental impacts, in violation of NEPA regulations.

C The Draft EIS is incorrect in stating that any of the alternatives considered are suitable for use as a container system for naval SNF. The Navy must take all reasonable

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steps tominimize the SNF risks to handling workers and to the public near SNF handling facilities and transport routes. Because the choice of the preferred alternative for management of naval SNF will set precedents for all SNF, the Navy must seek the risk-minimizing alternative.

Our recommendation of a preferred alternative is subject to the above stated inadequacies of this Draft EIS. We note in the Draft EIS that the radiological risks associated with the multi-purpose canister (MPC) systems are smaller than those for the other alternatives (since the naval SNF would not need to be removed from the canisters once inserted).

D Accordingly, because of the very large number of SNF shipments that will eventually arrive at the repository (commercial reactor SNF as well as naval SNF), we urge a multi-purpose canister system. A key objective of SNF management should be to minimize the handling of fuel assemblies and the MPC approach furthers that objective to a large degree.

E Maximum feasible use of rail (vs.truck) transport of SNF reduces overall risks to our country's citizens. The choice of MPC system (125-ton vs. 75-ton) must be coordinated with the choice of a rail MPC system for the transport of commercial reactor SNF. We urge that the Departments of Navy and Energy jointly choose an appropriate size MPC system suitable for both naval and commercial reactor SNF.

Yours respectfully,

Robert F. Deegan

Robert F. Deegan
Nuclear Waste Issues Chairman

Copy to: Richard Guida, Naval Nuclear Propulsion Program

DEPARTMENT OF THE NAVY
NAVAL SEA SYSTEMS COMMAND
2531 JEFFERSON DAVIS HWY
ARLINGTON VA 22242-5160

IN REPLY REFER TO

24 July 1996

Mr. Robert F. Deegan
Nuclear Waste Issues Chairman
Sierra Club, Virginia Chapter
340 Ramapo Road
Virginia Beach, VA 23462

Dear Mr. Deegan:

Thank you for your letter to Mr. Knoll of my staff dated July 18, 1996, providing comments on the Navy's draft Environmental Impact Statement covering selection of a container system for the storage and shipment of post-examination naval spent fuel. All of your comments will be included and evaluated in the final EIS.

With respect to one of your key issues, however, I wanted to allay concerns that the draft EIS is deficient. In particular, you stated that the draft EIS fails to analyze naval spent fuel shipments from shipyards to the Idaho National Engineering Laboratory (INEL), thus missing a substantial amount of naval spent fuel requiring shipment. All shipments of naval spent fuel from shipyards to INEL through the year 2035 were covered under the previous DOE/Navy programmatic spent fuel EIS, a copy of which was sent to you in April 1995. Those shipments ensure naval spent fuel can be examined at existing facilities at INEL, avoiding construction of new facilities elsewhere. The current draft EIS covers dry storage of that post-examination naval spent fuel at INEL, and its ultimate shipment from INEL to an interim storage site or geologic repository. Thus, we have not reduced the quantities under consideration or altered the role of naval shipyards as evaluated in the programmatic EIS; the shipyards remain responsible for refueling and defueling warships, and transporting all naval spent fuel so generated to INEL.

Thank you for your comments, and I hope that the information above is helpful.

Sincerely,

Richard A. Guida

Richard A. Guida
Associate Director
for Regulatory Affairs
Naval Nuclear Propulsion Program

Commenter: Robert F. Deegan, Sierra Club, Virginia

Response to Comment:

A. The issue of an EIS by the U. S. Navy, analyzing the alternatives for a container system for naval spent nuclear fuel, was preceded by the Department of Energy's decision not to proceed with preparation of an EIS that would cover both civilian and naval spent nuclear fuel due to programmatic decisions and funding changes. The Navy decided in December 1995 to assume the lead responsibility for this EIS for naval spent nuclear fuel. It is understood that the conclusions of this EIS will be considered by the Department of Energy, including the requirements of the National Energy Policy Act, in the course of actions pertinent to the selection of a container system for commercial spent nuclear fuel. The Navy does not agree that this approach can be construed as improper segmenting of environmental impacts because the selection of a container system for naval spent nuclear fuel is independent of the container systems to be used by the Department of Energy or the utilities. To summarize, the choice of a container system by the Navy does not mean that any other party or utility must also select that system.

B. As discussed in the Navy letter dated July 24, 1996, the Department of Energy Programmatic Spent Nuclear Fuel Management and Idaho National Engineering Laboratory Environmental Restoration and Waste management Programs Final Environmental Impact Statement (DOE 1995) covered in detail the proper management and transportation of pre-examination naval spent nuclear fuel. In particular, it specifically addressed environmental impacts related to the shipment of naval spent nuclear fuel from the shipyard, where nuclear-powered naval vessels are serviced, to the Idaho National Engineering Laboratory. That analysis included the two types of shipping containers certified for movement of naval spent nuclear fuel. It should be noted that there are valid Certificates of Compliance for both shipping casks used in transporting naval spent nuclear fuel from the shipyards to the Idaho National Engineering Laboratory. A Record of Decision was issued for the Programmatic SNF and INEL EIS in June 1996 and the use of either shipping container for dry storage was not the preferred alternative selected.

   This EIS focuses on the selection of a container system for loading, storage, and transportation of naval spent nuclear fuel and special case waste following examination at the Idaho National Engineering Laboratory, including transportation from the Idaho National Engineering Laboratory to a geologic repository or centralized interim storage facility. Four of the six alternative container systems analyzed in this EIS would allow naval spent nuclear fuel to be loaded and stored dry at the Idaho National Engineering Laboratory in the same container that would be used to ship the naval spent nuclear fuel outside the state of Idaho.

   The issue of two EIS documents addressing specific but different aspects and impacts related to naval spent nuclear fuel does not violate National Environmental Policy Act regulations.

C. Analyses of the potential impacts associated with all of the container systems considered for management of naval spent nuclear fuel are presented in this EIS. These include the impacts for manufacturing, loading and storage, and shipment over public transportation routes. These analyses show that any effects on human health or the environment would be small for all of the alternatives considered. The potential impacts due to normal operations or hypothetical accident conditions associated with the alternative containers systems evaluated present little or no significant risk to public health or the environment and do not constitute a high and adverse impact to any population in the vicinity of the activities involved. These risks are similarly so small that they do not assist in discriminating among the alternatives.

D. In Chapter 3, Section 3.8, Comparison of Alternatives, the EIS states that the impacts for most categories are small or nonexistent for all alternatives. Since 1957, the Navy has shipped over 660 containers of spent nuclear fuel from the shipyards and prototype sites to the Naval Reactors Facility. All of the shipments were made safely by rail and without release of radioactivity. Since any container alternative selected for use must meet the requirements of 10 CFR Part 71,

Packaging and Transportation of Radioactive Material, and 10 CFR Part 72, Licensing Requirements for the Independent Storage of Spent Nuclear Fuel and High-Level Waste, other containers can also be used safely and reliably.

E. The Navy agrees with the commenter that the use of rail reduces overall risks based on the national average statistics comparing truck and rail accidents and fatalities.

The reference for this statement is Trends in State-Level Accident Rates: An Extension of the Risk Factor Development for RADTRAN 4 (Saricks and Kvitek 1994b) which states that rail traffic fatalities per kilometer traveled due to accidents are 2.8×10^{-8} and the fatalities per kilometer due to truck accidents are 5.82×10^{-8}. The national average for rail accidents per kilometer traveled in rural, urban and suburban zones for rail transportation is 5.57×10^{-8} while for truck accidents in rural zones the national average is 2.03×10^{-7} and in urban and suburban zones it is $3.58 \times 10^{-7.}$ This reference has been added to the EIS, Chapter 3, Section 3.7 and to the list of references.

The Navy has not selected the multi-purpose canister as the preferred alternative and therefore it is not necessary for the Navy to coordinate the size of the choice with the multi-purpose canister for commercial spent nuclear fuel.